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**BIOMIRA**

A n n u a l R e p o r t

1998

T h e C a n c e r V a c c i n e P e o p l e <sup>TM</sup>



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## Biomira Corporate Profile

Biomira Inc. is a biotechnology company applying its leading immunotherapy and organic chemistry technologies for the development of cancer therapeutics. The Company's commitment to the development of products for the treatment of cancer is focused on synthetic therapeutic vaccines and innovative strategies for immunotherapeutic treatment of cancer. We are The Cancer Vaccine People™.

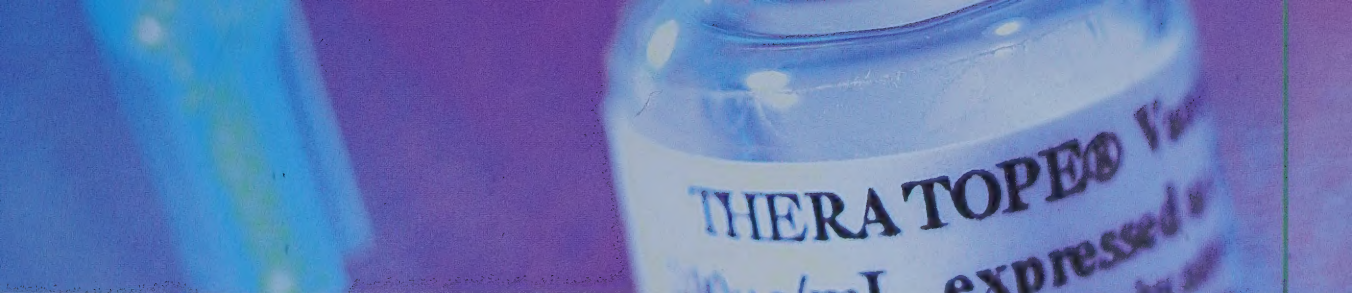
## Product Pipeline

product	indication	partner	status
<b>THERATOPE®</b> vaccine	breast cancer	Chiron Corp.	Phase III
<b>MUC-1</b> vaccines	epithelial carcinomas		Phase I
Liposomal IL-2			Pre-clinical
Liposomal Idiotypic vaccine	B-cell lymphoma	Biovector Corp.	Pre-clinical

## 1998 Highlights

January	Biomira scientists publish "Cancer-associated MUC-1 mucin inhibits human T-cell proliferation, which is reversible by IL-2" in <i>Nature Medicine</i> .
April	Signs non-binding letter of intent with Centocor Diagnostics of Malvern, PA to sell <b>TRUQUANT®</b> blood test kits. Announces bridging study for <b>THERATOPE®</b> vaccine to confirm immune response and safety of the improved product formulation.
May	Finalizes agreement to transfer <b>TRUQUANT®</b> blood test kits for detecting breast, ovarian and gastrointestinal cancers to Centocor Diagnostics.
June	Expands collaborative agreement with Chiron Corporation for the development of <b>THERATOPE®</b> vaccine.
August	Initiates Phase I safety and immunogenicity trial for <b>BLP25</b> – one of Biomira's MUC-1 vaccines – in patients with non-small cell lung cancer.
September	Enters into a co-development agreement with Biovector Therapeutics SA of Toulouse, France for Biomira's B-cell lymphoma idiotypic vaccine. Completes recruitment of 23 patients for <b>THERATOPE®</b> vaccine bridging study.
October	FDA agrees with Biomira on design of <b>THERATOPE®</b> vaccine Phase III clinical trial. John L. Zabriskie, Ph.D. joins Board of Directors.
November	Initiates multinational Phase III clinical trial for <b>THERATOPE®</b> vaccine in patients with metastatic breast cancer. Enters into a research collaboration with Axis Genetics plc of Cambridge, England to assess the potential of therapeutic cancer vaccines.
December	Mark D. Young, Ph.D. joins the Company in the newly created position of Chief Operating Officer. Completes recruitment of 17 patients for <b>BLP25</b> vaccine for non-small cell lung cancer.





# Innovative Cancer Therapeutics through Vaccine Technologies

**THERATOPE® vaccine advances to Phase III clinical trials**

In November 1998 the first patient was injected with an improved formulation of Biomira's THERATOPE® vaccine, signaling the start of Phase III trials in the treatment of metastatic breast cancer. We designed a rigorous trial to produce statistically significant, definitive results on whether THERATOPE® vaccine can prolong time-to-disease progression and extend life.



## Dear Shareholders:



I am pleased to report that 1998 was an exciting and productive year for Biomira. The year saw important results of a renewed commitment to our core business, and the future has never looked more promising — both for Biomira and improved cancer treatments. We believe our team has demonstrated a smart business strategy and delivered on every major objective. In fact, in 1998 we met or exceeded each and every one of our milestones. Biomira now stands apart at the forefront of commercializing novel cancer therapies.

We have taken the right steps towards bringing our products to market, achieving profitability and providing a return on investment for shareholders.

At the end of 1997, we defined a new corporate identifying statement: We are The Cancer Vaccine People™. In 1998 we focused on making that statement Biomira's modus. One of the highlights of the year was the initiation of Phase III clinical trials for our THERATOPE® cancer vaccine. But that isn't to say that our other accomplishments weren't as significant. We fulfilled one of our important objectives in 1998 by divesting our non-cancer vaccine assets; we signed three new corporate alliances; and we expanded our management team through the addition of Mark D. Young, Ph.D., as Biomira's Chief Operating Officer. We approached each of these important milestones with one clear objective: being a leader in the development and commercialization of therapeutic vaccines for the treatment and management of cancer.

### THERATOPE® Vaccine Progresses into Phase III Clinical Trials

To place the past year in perspective, we ended 1998 with one of the most significant events in our history. We began enrolling patients with metastatic breast cancer into a major Phase III clinical trial for our lead product, THERATOPE® vaccine. Entering into Phase III clinical trials is a big step for any biotech company, and a giant leap for Biomira towards making our vision a reality.

Our vaccine technology has shown tremendous promise in heralding a new generation of cancer therapies associated with better efficacy and reduced toxicity. In one study arm of our Phase II trials, we observed a median survival of 26.5 months for patients treated with THERATOPE® vaccine, compared to 9.2 months for patients in a retrospective control group. Then Biomira scientists made a new discovery: an enhanced formulation of THERATOPE® vaccine, when tested in pre-clinical studies, was 100 times more potent than our original vaccine. We felt it was in the best interest of cancer patients to develop a product that would elicit an even stronger immune response, and decided to enter the Phase III trial with our enhanced formulation.

We reached an agreement with the US Food and Drug Administration on the design of a bridging study to confirm the safety and immunogenicity of the enhanced product. Biomira believes that such a study is an appropriate long-term business decision. We announced and completed enrolment in the bridging study in the

fourth quarter of 1998. Interim data indicate that the improved version appears to be as safe and more immunogenic, and we expect to release more mature results in 1999.

Our randomized, Phase III clinical trial of THERATOPE® vaccine is being conducted in over 75 sites in the U.S., Europe and Canada and will eventually enrol 900 evaluable breast cancer patients whose cancers have spread - 450 in the control arm and 450 in the THERATOPE® vaccine arm. All clinical trial patients will have completed first-line chemotherapy for metastatic disease and will have no evidence of disease or have non-progressive disease. Primary endpoints will be time-to-disease progression and survival. Secondary endpoints will be quality of life, safety and immunogenicity. We expect enrolment to take 12 to 18 months, and plan to take an interim look at results as early as 24 months after commencement of the trial.

### Strategic Collaborations

Biomira has said it intends to pursue corporate collaborations to lower our burn rate and take advantage of the expertise that exists outside of our arena. Our collaboration with Chiron Corp. has brought significant value in designing and initiating Phase III trials with our lead product candidate. In June 1998 we expanded our agreement with Chiron for the development of THERATOPE® vaccine. Under the terms of the new agreement, we maintained marketing rights in Canada and added rights in Latin America, Africa, the Middle East, South East Asia and



the Pacific, excluding Australia, Japan and the People's Republic of China.

In November 1998, Biomira entered into a research collaboration with Cambridge, UK-based Axis Genetics to assess the potential of therapeutic cancer vaccines. Biomira and Axis Genetics have both developed vaccines that target the MUC-1 peptide found on 90 percent of common solid tumours, including breast, ovarian and lung cancers. Since each vaccine induces different, potentially complementary types of immune response, examining our vaccines together and combining resources will be beneficial to both companies. The patents related to these products are held by Biomira.

In September, we announced that we had entered into a co-development agreement for Biomira's B-cell lymphoma idiotype vaccine with Biovector Therapeutics SA of Toulouse, France. Under the terms of the deal, which covers developing, marketing and manufacturing, Biomira received a US \$500,000 upfront payment from Biovector and will receive additional payments of US \$15.5 million if all milestones are met. Biomira retains manufacturing rights in North America.

In May the Company finalized its agreement to transfer TRUQUANT® blood test kits for the detection of breast, ovarian and gastrointestinal cancers to Centocor Diagnostics of Malvern, PA. Biomira received US \$650,000 for this sale, plus royalties.

### Looking Forward

Throughout 1998 Biomira remained focused on its vision of changing the

way we understand cancer and continued to lead the industry in technologies that hold great potential in its treatment. Every milestone we achieved reflects our focus on that vision. For 1999, Biomira will continue to focus on developing cancer vaccines and therapeutics.

To reduce the risk inherent in pharmaceutical development, we will continue to outsource activities and pursue product in-licensing and partnerships. In some cases, partners for a particular technology might not be the largest pharmaceutical or biotechnology company, but the partner that will best complement Biomira's strengths and move strong product candidates through to commercialization. Analysts on Wall Street have long recognized that this strategy works.

Biomira will also examine additional applications of existing products. For example, in earlier trials THERATOPE® vaccine was tested for the treatment of ovarian cancer, colorectal cancer, pancreatic cancer and breast cancer. Biomira decided to pursue a vaccine for metastatic breast cancer because of compelling Phase II data and market size. However, that doesn't preclude us from developing additional indications once the product has reached the market. Such a strategy allows us to save resources for development of such products, while opening the potential for additional sources of revenue.

Guiding your company through these and other objectives has been Biomira's Board of Directors. I thank our Board members for their continued support and counsel. In 1998, John L. Zabriskie,

Ph.D. joined the Board as its newest member. Dr. Zabriskie is currently Chief Executive Officer and President of NEN Life Science Products, Inc. Previously, he was President and Chief Executive Officer of Pharmacia and Upjohn, Inc. We are very pleased to welcome Dr. Zabriskie to our board and believe his insight will add great value as we progress with our cancer vaccine programs.

Biomira's ongoing success is the result of the dedicated contribution and participation of our employees. I would like to thank them for the success they created throughout 1998. I would also like to thank you, our shareholders, for your investment and continued confidence in Biomira.

I can't say it any better than one of our patients in our Phase III THERATOPE® trial: "This program will succeed; we deserve it."

Very sincerely,



Alex McPherson, M.D., Ph.D.  
President and Chief Executive Officer



## Cancer and Its Therapy

The cost of cancer treatment is estimated at \$107 billion annually, including \$37 billion in direct medical costs. Breast, lung and prostate cancers account for over half of these direct medical expenses.



**Cancer.** The word itself conjures up malevolence. Characterized by dividing abnormal cells that spread unchecked in the body, it is one of the biggest killers of our time.

In nearly all cases, cancer cells evade detection by the body's immune system. Uncontrolled, they are able to proliferate into tumours while sending cells to distant parts of the body, a phenomenon called metastasis. Cancers that have spread in this way are the hardest to cure and the most deadly.

Today, there are four primary methods used to treat cancer. Some are invasive or toxic, while offering limited efficacy. None are cancer specific. Few treatments available today address the immune system's failure to fight the invading cells on its own. Instead, treatment is still focused largely on highly toxic regimens.

**Surgery** to remove malignant mass is the oldest form of cancer treatment. About 60 percent of cancer patients

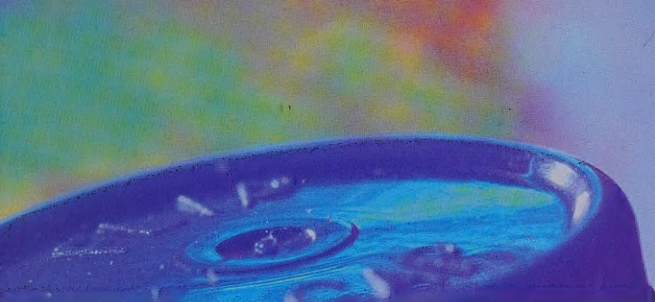
will have some kind of surgery or operation during the course of treatment. Surgery is most effective against localized disease. If the cancer has metastasized, then it must be used in conjunction with other therapies.

**Radiation therapy** uses high-energy particles or waves, such as x-rays or gamma rays, to destroy cancerous tissues. This is most useful when a tumour cannot be surgically removed. The main side effects result from the damaging effects of radiation on surrounding normal tissue, potentially leading to the creation of new malignancies.

**Chemotherapy** involves the use of drugs to treat cancer. Systemic chemotherapy uses anti-cancer agents that are administered orally or intravenously. These drugs enter the bloodstream and reach many areas of the body, making this treatment useful for cancers that have spread.







Chemotherapy has been remarkably effective at treating some cancers, but ineffective at improving quality of life and survival. Because chemotherapeutic agents attack all dividing cells, both healthy and diseased cells are affected.

**Hormone Therapy** involves treatment with drugs that interfere with hormone production or hormone action, such as anti-estrogen therapy. It may also include surgical removal of hormone-producing glands to kill cancer cells or slow their growth.

### Moving Beyond Traditional Treatment

Biomira is developing therapeutic vaccines to treat cancer. This approach, part of a larger methodology known as immunotherapy, represents the newest vision for cancer treatment. These vaccines are designed to stimulate the patient's own immune system to defend itself against cancerous cells, by inducing the body to recognize such cells as foreign and diseased. They are cancer-specific and appear not to harm healthy cells.

Biomira's vaccines have minimal toxicity, while suggesting strong potential in cancer control. They have no known contraindications and are designed to augment existing treatment regimens including surgery, radiation and chemotherapy.

Central to Biomira's philosophy is a disease management approach to cancer, a newly emerging concept in the field of cancer therapy. Cancer management means physicians will be able to increase chances of long-term survival. Biomira believes cancer vaccines hold the promise of successfully "living with cancer," much like people live with diabetes, arthritis or heart disease.

### Cancer Statistics

From the American Cancer Society, the National Cancer Institute and Health Canada.

- Cancer is the second leading cause of death in North America, after heart disease. One of every four deaths in the U.S. alone is from cancer.
- An estimated 1,357,000 new cases of cancer were reported in North America in 1998. Since 1990, approximately 11 million new cancer cases have been diagnosed.
- An estimated 627,500 cancer-related deaths were reported in North America in 1998.
- The National Cancer Institute estimates overall annual costs for cancer at \$107 billion: \$37 billion in direct medical costs, \$11 billion in lost productivity and \$59 billion in mortality costs. Breast, lung and prostate cancers account for over half of these direct medical costs.



*"Observers say that of the half dozen-odd biotech companies around the world working on cancer vaccines, Biomira appears to be a front runner."*

*National Post, December 1, 1998*

## **Keeping Cancer In Check: The Promise of Cancer Vaccines**

Biomira is at the forefront of a new generation of cancer therapeutics that has the potential to fundamentally change the way we treat and understand the disease. This group of agents, known as cancer vaccines, is designed to mimic specific antigens associated with unique types of cancers.

The concept of immunity to infectious disease has long been recognized by the scientific and medical communities. The new question faced by scientists was whether vaccines could generate an immune response to malignancy. This very question led to the development of cancer vaccines that would be used therapeutically to boost the immune systems of patients already afflicted with disease. Researchers at Biomira were among the first to discover one of the mechanisms that might explain why the immune system fails to attack cancer cells, a key step in finding a way to address this phenomenon.

Cancer cells, they discovered, secrete molecules that suppress the immune system, rendering the body's own disease-fighting mechanisms ineffective. These molecules, known as mucins, are altered on cancer cells. Biomira researchers found that the glycoprotein MUC-1 mucin, which is secreted by 90 percent of all epithelial, or common cancer cells, inhibits T-cells and causes the immune system to ignore the presence of disease. Scientists found a way to "trick" the body into recognizing the cancerous cells as abnormalities. They demonstrated that the protein interleukin 2 (IL-2) can reverse general immune system inhibition when given in low doses. They also created synthetic

mimics of the antigens found on the surface of cancer cells, increasing the body's own immune response to the disease by creating a very specific trigger. The Company's epithelial vaccines are based on this principle.

The high expression of the MUC-1 mucin in so many human cancers makes it an attractive target for immunotherapy. Biomira, through patent licensing agreements with the Dana-Farber Cancer Institute in Boston, MA, and the Imperial Cancer Research Fund in the United Kingdom, has secured worldwide rights to any MUC-1 synthetic vaccine. The mucin is expressed in the most common forms of human cancer, including breast, ovarian, colorectal and lung cancers.

Biomira strongly believes that immunotherapy has the potential to revolutionize cancer treatment, offering a safe mechanism that can be used with all other cancer therapeutics available on the market today. Biomira's technology targets only cancer-associated antigens, minimizing toxicity by leaving healthy cells alone. Having no known contraindications, these vaccines have the potential to

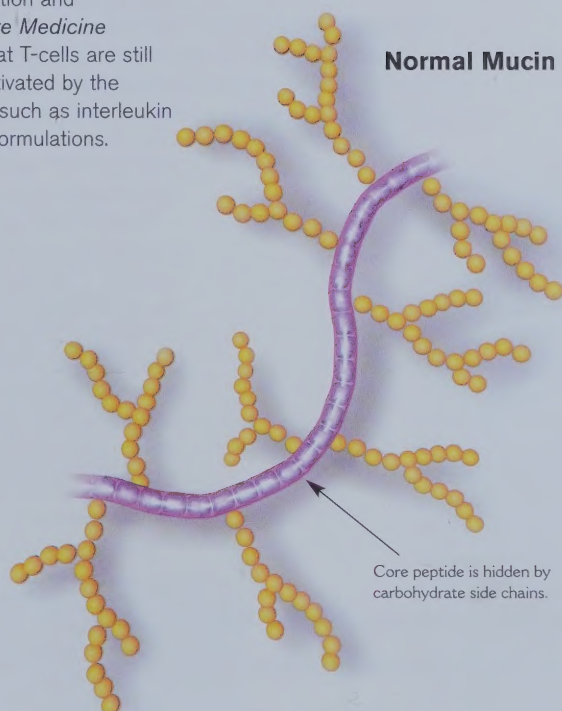


increase efficacy and survival in cancer patients in combination with other currently approved treatments. By delaying disease progression, these vaccines may improve survival so significantly that patients will be able to maintain and tolerate cancer tumours while still leading normal lives.

#### **Nature Medicine Study Provides Scientific Support**

In January 1998, Biomira scientists published a paper in *Nature Medicine*, one of the most prestigious scientific journals, that provided compelling data that supported its MUC-1 vaccine theory. In the paper, "Cancer-associated MUC-1 mucin inhibits human T-cell proliferation, which is reversible by IL-2," Biomira scientists demonstrated that MUC-1 protein extracted and purified from cancer patients inhibits the proliferation of immune T-cells in vitro. T-cells are important disease-fighting

white blood cells that the immune system uses to fight off infection and foreign agents, including tumours. Unfortunately, cancer cells evade immune system detection and proliferate. The *Nature Medicine* paper also showed that T-cells are still alive and can be reactivated by the injection of cytokines such as interleukin 2 (IL-2), in low-dose formulations.



**Normal Mucin**

Core peptide is hidden by carbohydrate side chains.

#### **MUC-1 Cancer Mucin**



Exposed core peptide targeted by BLP25 vaccine

STn carbohydrate targeted by THERATOPE® vaccine



## THERATOPE® Vaccine Trial Design

The THERATOPE® vaccine study was developed within a comprehensive trial design that should not suffer the pitfalls of many clinical studies. With 900 evaluable patients at over 75 worldwide sites, it is a rigorous trial in both size and structure. The trial is designed to definitively address whether THERATOPE® vaccine can delay disease progression and extend survival in patients with metastatic breast cancer. Accelerated approval is possible if an interim look at data shows highly significant results.

## THERATOPE® Vaccine for Managing Metastatic Breast Cancer

### Breast Cancer Vaccine Progresses into Phase III Study

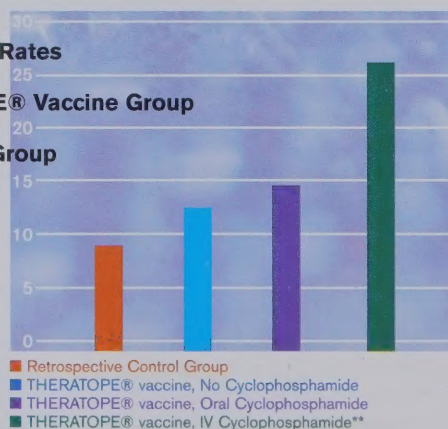
Biomira made strong headway this year towards bringing its first product candidate, THERATOPE® vaccine, to market. The Company started and completed enrolment of a bridging study to assess an improved formulation of the therapeutic vaccine and began enrolment in a multinational Phase III clinical trial. The largest study of its kind, the trial is designed to test THERATOPE® vaccine in the treatment of metastatic breast cancer.

THERATOPE® vaccine is a biological product that consists of a synthetic mimic of a cancer-associated antigen, the carbohydrate Sialyl Tn (STn) attached to Keyhole Limpet Hemocyanin (KLH), a large carrier protein. STn is a naturally occurring antigen found on the surface of many cancer cells, including breast, ovarian and colon cancers. In fact, STn serves as a marker of cancer aggression

and is associated with poor prognosis. It is derived from the MUC-1 mucin, consisting of a carbohydrate component of the glycoprotein. In a normal cell, the mucin has elaborate branches of carbohydrates attached to it. In cancer cells these carbohydrate chains are incomplete, exposing the STn and creating new epitopes, or cancer-associated antigen markers. Isolated from the blood of a marine mollusk, KLH is a high molecular-weight protein and a potent immune system stimulant. Combined, the STn-KLH compound induces the body to mount an immune response against cancer cells that express the STn epitope.

In clinical trials of more than 350 patients combined, THERATOPE® vaccine was tested in colon cancer, ovarian cancer, pancreatic cancer and breast cancer. The vaccine was found to induce a specific immune system response against the STn tumour-associated antigen, seemingly causing the body's immune system to respond to and attack cancerous cells. In Phase II metastatic breast cancer trials, 25 patients treated with the vaccine were observed to have a median survival of 26.5 months, a statistically significant improvement over the median survival rate of 9.2 months for patients in a retrospective control group matched for major survival-predicting variables.

**Phase II Trial Median Survival Rates  
(in months) of the THERATOPE® Vaccine Group  
vs. the Retrospective Control Group**



### Biomira Discovers More Potent Formulation

In the fall of 1997, Biomira's scientists found an enhanced formulation of THERATOPE® vaccine that, in pre-clinical testing, was 100 times more

\*\* THERATOPE® vaccine combined with intravenous Cyclophosphamide, will be administered to patients in the Phase III trial. Compared to the Retrospective Control Group, patients treated with the intravenous form of Cyclophosphamide prior to injection of THERATOPE® vaccine, showed a significantly improved survival rate.



Mary Katherine Smith of Centreville, Virginia was among the first patients to receive THERATOPE® vaccine as part of Biomira's Phase III trial. Ms. Smith, a mother of four, was first diagnosed with breast cancer in 1992. She achieved a full remission, but was devastated to discover six years later that her cancer had returned. Ms. Smith went back into chemotherapy in February 1998, and her disease has since stabilized. She entered the THERATOPE® vaccine trial in November 1998.



*"This vaccine is a far more kind and gentle approach to cancer than chemotherapy or other treatments available today, and I look forward to the day when all cancer treatment is this gentle. I feel very fortunate to be a part of this trial."*

potent than the original formulation and elicited a stronger immune response. Biomira decided to move an enhanced version of the compound into the clinic. To show that the improved formulation remained safe and efficacious, we conducted a six-month bridging study before starting Phase III clinical trials.

The bridging study was initiated in spring 1998 to confirm the immune response and safety of the enhanced THERATOPE® vaccine formulation. Enrolment of 38 patients with metastatic breast cancer was reached in December. Initial results from the study indicate that the improved formulation appears to be as safe as and more immunogenic than the formulation used in previous clinical trials. Final data from the bridging study is expected in 1999.

#### **THERATOPE® Vaccine Enters Major Phase III Study**

In November, Biomira announced that Phase III trials of THERATOPE® vaccine for metastatic breast cancer had commenced. The trial will evaluate 900 evaluable patients at over 75 sites in the United States, Europe and Canada. It is designed to take 48

months and expected to produce definitive data on whether THERATOPE® vaccine is effective in delaying time-to-disease progression and prolonging life. Along with other experts in the field, we designed a rigorous trial that will leave little question as to the validity of data produced. If an interim look at results demonstrates significant data, it is possible that Biomira will receive accelerated marketing approval as early as 2001.

The goal of the Phase III study is to determine the effectiveness of THERATOPE® vaccine in patients with metastatic breast cancer who have responded to first-line chemotherapy with either no evidence of disease or non-progressive disease. The randomized, double-blinded study will compare time-to-disease progression and survival of patients after receiving THERATOPE® vaccine to that of patients receiving a control vaccine with all of the active ingredients except STn. In addition, the trial will document the product's safety profile, patient antibody response and the impact of THERATOPE® vaccine therapy on patients' health-related quality of life.

Metastatic breast cancer is breast cancer that has metastasized, or spread, beyond the primary tumour. It is estimated that some 200,000 new cases of breast cancer are diagnosed in North America each year. Approximately 6 percent of newly diagnosed patients present with metastatic breast cancer. The number of women in whom the disease has spread to other major organs is estimated to be 135,000 in North America and Western Europe.



## Continued Progress in Cancer Vaccine Development



Biomira continues to make strong headway in its proprietary MUC-1 mucin program and will initiate Phase II pilot studies in 1999. The Company's BLP25 vaccine is a peptide encapsulated in a liposome, a fat droplet smaller than a red blood cell, for more effective delivery. Also evaluated was BP16, another peptide-based vaccine.

Research shows that the higher the blood concentrations of MUC-1, the worse a patient's prognosis. If the immune system can be activated against MUC-1 expressing cells, the body may be able to stage an effective immune response to eliminate tumour activity.

Biomira is currently analyzing BLP25 in non-small cell lung cancer and moving forward in the clinical trial process. This vaccine is composed of a 25-amino acid sequence of the MUC-1 cancer mucin encapsulated in a liposomal delivery system designed for better efficacy.

In pre-clinical models, the BLP25 compound prevented lung metastases when given prior to an injection of a cancer cell line expressing human MUC-1. In other experiments, cancer cells were almost completely eradicated when BLP25 was administered after the cancer cells had established microscopic cancer nodules.

### A Rich Pipeline

In August, Biomira announced that it had begun a Phase I safety and dose comparison study of its BLP25 cancer vaccine in 17 non-small cell lung cancer patients. Lung cancer is the leading cause of cancer death in both men and women in North America, with approximately 149,000 new cases and 133,000 deaths reported in 1997. Chemotherapy only modestly improves the survival of lung cancer patients. Enrolment for the BLP25 Phase I trial was completed in December and results were released early in 1999.

Preliminary analysis of the data show that BLP25 is both safe and triggers a cytotoxic T-lymphocyte immune response against cancer cells. An outside panel of experts was brought in to compare the data from Phase I testing of Biomira's two MUC-1 peptide vaccines, and agreed with the Company that BLP25 should be the product further developed for the treatment of cancer. Biomira will move forward with Phase II pilot trials in 1999 to determine the optimal dosing for induction of an immune response to cancer, which will allow the Company to effectively plan pivotal trials using a dosing strategy that maximizes the potential for success.

Biomira is currently developing a strategy for further testing of its MUC-1 vaccines, which may include therapy with Liposomal IL-2. Biomira's MUC-1 therapeutic vaccine may provide a novel approach to treating cancer with the goal of prolonging life, and could play an important role in managing the deadly disease that is cancer.



## The Future of Cancer Vaccines

A new generation in cancer therapeutics is quietly developing as scientists learn more about the disease's mechanics, growth and proliferation. Through better diagnostics and more effective treatments, the future looks promising. We believe the focus in cancer treatment will ultimately shift from simply a focus on surgery and chemotherapy to more patient-friendly treatments that "manage" cancer. These vaccines use the patient's own immune system in the fight against tumour growth.

### Targeted Immune System Stimulant Delivery

In pre-clinical models, Biomira has demonstrated that interleukin 2 (IL-2), a cell messenger that stimulates T-cell development and modulates immune response, reverses the immune suppression caused by the MUC-1 antigen. This research was published in *Nature Medicine* in January 1998.

High doses of IL-2 administered alone are often toxic. However, Biomira developed a novel system for administering IL-2 by incorporating it in a liposome, a fat droplet smaller than a red blood cell that can be used to carry and facilitate the slow-release of IL-2. Preclinical studies show that Liposomal IL-2 appears to enhance the therapeutic effect of peptide vaccines. Plans call for testing of Liposomal IL-2 in combination with a MUC-1 vaccine to potentially enhance the immune response to the vaccine in cancer patients. Biomira believes Liposomal IL-2 can also be developed for use in other cancer indications, as well as certain infectious diseases such as AIDS.

### Liposomal Idiotypic Vaccines

Biomira is developing a method of combining IL-2 with patient-specific tumour antigens obtained from cancer cells to produce a customized vaccine against a patient's own cancer cells. This type of therapeutic vaccine formulation combines the ability of liposomes to target the immune system and to simultaneously deliver tumour-specific cancer antigens with a potent immune stimulant (IL-2). It holds the promise of producing the most effective cancer treatment ever.

Biomira has developed a novel lymphoma vaccine based on this liposomal idiotypic vaccine model. The vaccine was developed under a collaborative research and development agreement between the U.S. National Cancer Institute (NCI) and Biomira USA Inc., a wholly owned subsidiary of the Company. This vaccine is expected to proceed into a Phase I clinical trial at the NCI in association with Biovector Therapeutics of Toulouse, France, a collaborative partner, in 1999. Preclinical data suggests that this type of patient-specific vaccine far exceeds the expectations of other products on the market or in development for use in the treatment of lymphoma.







## Corporate Strategy: Refining Our Vision

Our vision at Biomira is clear and simple: to be a world leader in the development and commercialization of immunotherapeutic cancer treatments. We took steps in 1998 to ensure that focus by making a strategic decision to sell our TRUQUANT® blood test kits to Centocor Diagnostics and intensify our emphasis on commercializing cancer vaccines.

### Sound Business Strategy

Just as important as maintaining a concise vision, is a sound business strategy that lays the groundwork for success. Retaining control of our novel therapeutic technology is fundamental to Biomira's business strategy. We have a strong scientific basis behind our technology that we believe holds the formula for success. To expedite development of products based on this technology, we will continue to pursue strategic alliances that strengthen Biomira's position and are in keeping with our goals. In this challenging business, collaboration means efficiency. We believe it would be ill-considered to plan a growth strategy that does not involve alliances with the international biotech and pharmaceutical communities.

Patent protection and the security of our intellectual assets are critical

elements of the strategic discipline we apply in ensuring that our competitive position is uncompromized. We accomplish this by filing patents and in-licensing the necessary technology. Such agreements place the commercialization of Biomira's technology in a strong worldwide strategic position.

### Sound Development Strategy

Biotechnology companies are valued, in large part, by their ability to design and manage the clinical trial process effectively. In fact, the success or failure of many in the industry has often been a direct result of efforts in this key area. Biomira understands the rigorous process of designing effective trials that will produce definitive results, while managing the risk factors inherent to this aspect of new drug development.

Reasons for clinical trial failure that are exerted on a company from external sources, namely limitations on time and financial resources for planning, have been addressed by Biomira in ensuring we have a strong cash position from which to proceed.

### Strong Finances

One measurement of Biomira's progress is the use and preservation of financial resources. Biomira recognizes that it

## Biomira's 1998 Collaborative Agreements

During 1998, Biomira continued its strategy of pursuing strategic alliances to maximize its resources, produce the best possible products and expedite development.

**Expanded Chiron Agreement.** In June, Biomira announced the expansion of its collaborative agreement with Chiron Corp. for the development of THERATOPE® vaccine for breast cancer.

Under the terms of the new agreement, Biomira maintained marketing rights to THERATOPE® vaccine in Canada, and added the right to market the vaccine in Latin America, Africa, the Middle East, South East Asia and the Pacific, excluding Australia, Japan and the People's Republic of China. Biomira now has

the ability to deal independently with any potential partners in these jurisdictions. The initial co-development deal was signed in May 1997, with Biomira and Chiron agreeing to share equally the costs of clinical, regulatory, research and development activities for THERATOPE® vaccine for breast cancer in the United States and Europe. The expanded agreement is designed to facilitate the best development and marketing strategy for worldwide distribution.

**Axis Genetics Collaboration.** In November 1998, Biomira entered into a research collaboration with Cambridge, UK-based Axis Genetics to assess the potential of therapeutic cancer vaccines.

Biomira and Axis Genetics have both developed vaccines that target the





must hold its burn rate to a level that will enable the Company to achieve profitability with the commercialization of its lead product candidate. Our project budgeting and scheduled deployment of funds over the next few years will allow Biomira to use current and anticipated cash flow to fund the highest ranking projects in our product portfolio.

Biomira's continued adherence to budget controls and strong fiscal management will serve this strategy, as will our abilities to increase revenues through out-licensing of certain technologies. Biomira's science is well recognized, and the Company has a rich product pipeline. Technologies at earlier stages of development are potentially attractive acquisitions for other biotech firms exploring their own approaches to managing disease.

Biomira's strong cash position is also being preserved through the outsourcing of activities such as sterile filling, blind labelling, pivotal phase and commercial bulk product manufacturing and active ingredient manufacturing. A thorough review of all in-house capabilities is underway to assist the Company in determining those activities that can be more effectively undertaken by external suppliers.

In an effort to streamline and increase efficiency, Biomira is amalgamating existing Canadian operations in Edmonton from two facilities into one.

### Strategic Appointments

In December 1998 Biomira created the new position of Chief Operating Officer as part of its strategy of increasing outsourcing, minimizing infrastructure costs and reviewing corporate operations. Appointed to this new position, effective February 1, 1999, was Mark D. Young, Ph.D., who joined the Company the previous year as an executive consultant. Dr. Young reports to the Company's President and CEO and oversees Clinical and Regulatory Affairs, Research and Development, Technical Operations, Biomira USA and Project Management.

Prior to joining Biomira, Dr. Young worked as Vice President, Technical Operations at Protein Design Labs of Mountain View, CA, Executive Vice President, Technical Operations at Synergen Inc. of Boulder, CO and as a scientist at Pharmacia and Upjohn and Hoffman-LaRoche.

Biomira's tactical approach for advancing products through development, managing the clinical process and assessing financial risks and gains is based on thorough planning and

dedicated application. We have an excellent management team, a solid and innovative pipeline of promising products and the accountability that leads to long-term success.

MUC-1 peptide found on 90 percent of common solid tumours, including breast, ovarian and lung cancers. Since each vaccine induces a different, potentially complementary type of immune response, combining resources will help increase efficiency at both companies and bring the best possible products to market.

Under the terms of the agreement, Axis Genetics will manufacture and supply its vaccine to Biomira for evaluation in preclinical studies. Each company will bear its own cost. Upon completion of the research, Biomira and Axis Genetics will review the data to determine the most appropriate development strategy.

**Biovector Collaboration.** In September, Biomira entered into co-develop-

ment agreement for its B-cell lymphoma idiotype vaccine with Biovector Therapeutics SA of Toulouse, France.

Under the terms of the deal, which covers developing, marketing and manufacturing, Biomira received a US \$500,000 upfront payment from Biovector and will receive additional payments of US \$15.5 million if all milestones are met. Biomira retains manufacturing rights in North America, while Biovector has them elsewhere.

Biovector assumes the costs associated with clinical trials and will be responsible for worldwide marketing with the exception of Japan, where Biovector retains the right of first refusal. In addition to royalty payments on sales, Biomira will receive transfer fees for the cost of goods on the product it manufactures.

## Management's Discussion and Analysis of Financial Condition and Results of Operations

The following information, prepared in accordance with generally accepted accounting principles in Canada (Canadian GAAP), which differ in certain respects from those of the United States (U.S. GAAP), should be read in conjunction with the consolidated financial statements and accompanying notes.

### Overview

Biomira Inc. (the "Company") is a biotechnology company specializing in developing innovative therapeutic approaches to cancer management. This commitment to the treatment of cancer currently focuses on the development of synthetic vaccines and novel strategies for the immunotherapy of cancer. We are the Cancer Vaccine People™.

Biomira is currently undertaking a rigorous clinical trial process in order to obtain regulatory approval for the commercial sale of its product candidates. Lengthy and expensive clinical trials essential to the drug development process are needed to satisfy regulatory authorities worldwide of the safety and efficacy of Biomira's potential products. Unless and until the Company obtains regulatory approval for the commercial sale of one or more of its potential products, it will incur losses, which will likely be substantial.

The Company believes there are substantial commercial opportunities for its potential products, which may lead to new and better methods of treating cancer. However, the development of potential products involves long lead times, and the timing and amount of revenues from these potential products are affected by a number of factors beyond the Company's control. Included are the pace of technological development, a changing regulatory environment, and the results of clinical trials undertaken by others.

To fund its operations, the Company principally relies upon the proceeds of public and private offerings of equity securities, and, to a lesser extent, on licensing revenues and research contracts. The Company's current strategic direction is to retain most rights to its core technologies and to undertake as much of the regulatory process as possible prior to engaging collaborative alliances with corporate partners. The Company believes that this strategy helps to ensure that our shareholders receive maximum value for the technology developed by the Company.

For the years presented, the loss from the Company's discontinued operations, Biomira Diagnostics, has been reported separately in the attached financial statements. The Company did not incur any gains or losses associated with the wind up of this subsidiary.

### Results of Operations

The consolidated losses from continuing operations for the years 1998, 1997, and 1996 were \$22.5 million, \$18.1 million and \$19.5 million, respectively. The increase in losses over 1997 and 1996 is primarily due to the significant advancements of THERATOPE® vaccine which entered a multinational Phase III clinical trial in late 1998. These losses are typical of a mid-stage biotechnology company as it proceeds through the rigorous regulatory approval process.

### Revenue

Revenues from continuing operations for the years ended 1998, 1997 and 1996 were \$6.0 million, \$7.0 million and \$4.3 million, respectively. Revenues are mainly generated from licensing agreements, royalties, and interest income on the Company's cash balances. Revenues are not expected to increase significantly until the commercialization of one or more of the Company's products. However, the Company will continue to explore further licensing opportunities and collaborative alliances for some of its technologies which may contribute to future revenue generation.

#### *Licensing, royalties and other income*

Revenues received for licensing out certain technologies and royalties received for the three years ended 1998, 1997, and 1996 were \$2.0 million, \$3.1 million and \$1.2 million, respectively. Current year licensing revenues have declined in comparison to the previous year due to licensing revenues received from Chiron Corporation in 1997 related to the co-development of THERATOPE® vaccine.

#### *Interest Income*

Interest income increased to \$3.9 million in 1998, compared to \$3.8 million and \$2.7 million in 1997 and 1996, respectively, as a result of increased returns on the Company's investments despite lower cash balances. The effective rate of return on the Company's surplus cash for 1998 was 6.25% compared to 4.7% and 5.4% for 1997 and 1996 respectively.

### Expenses

Total operating expenses from continuing operations for the years 1998, 1997, and 1996 were \$28.4 million, \$25.1 million, and \$23.9 million, respectively. These expenses are all related to the Company's first, and second-generation therapeutic products and product candidates, infrastructure development, and administrative support of the Company's efforts to commercialize its technologies. The increase in expenditures in 1998 is primarily due to increased research and development costs related to the successful advancement of the Company's leading product candidate, THERATOPE® vaccine, into Phase III clinical trials.



Biomira's existing collaborative agreement with Chiron Corporation includes a provision for cost sharing of certain expenditures associated with the advancement of Biomira's THERATOPE® vaccine for breast cancer. Included in 1998 expenses are reimbursements from Chiron Corporation totaling \$2.1 million compared to \$0.8 million and \$0 for 1997 and 1996, respectively. Reimbursements in the upcoming year are expected to increase in proportion to an increase in clinical and regulatory costs associated with the advancement of THERATOPE® vaccine through Phase III trials.

#### *Research and Development*

For the three years ended 1998, 1997 and 1996, the Company incurred \$20.2 million, \$16.7 million and \$15.2 million, respectively, in direct research and development costs. Research and development costs increased 21% in 1998 when compared to the previous year due to substantial costs incurred in pursuit of clinical trials and other costs associated with regulatory approval for the Company's leading product candidate, THERATOPE® vaccine.

As Biomira's main program proceeds through Phase III clinical trials and through the regulatory approval process over the next few years it is anticipated that the research and development expenses associated therewith will increase. Furthermore, clinical trial advancements in Biomira's second generation therapeutic products; BLP25 vaccine for Lung Cancer and Idiotype vaccine for the treatment of low-grade lymphomas, will contribute to increased research and development spending in future years. Some of these expenditures may be offset through existing and/or new collaborative arrangements with corporate partners.

#### *General and Administrative*

General and administrative expenses for 1998, 1997 and 1996 were \$5.7 million, \$5.4 million and \$4.8 million, respectively. General and administrative costs have increased 5% when compared to the previous year due primarily to consulting and professional costs related to increased corporate development activities.

### **Liquidity And Capital Resources**

Since the incorporation of Biomira in 1985, the Company's research programs, capital expenditures and investments have been financed from several sources. These have included research collaboration agreements with both government and industry partners, up-front licensing fees of the Company's technologies, interest income, and to a much greater extent, public and private placements of the Company's common shares.

Biomira maintains a comprehensive financial planning, budgeting, and reporting function through which the Company maintains a disciplined approach to the management of liquidity, capital, and overall financial stability. The Company invests its cash reserves in liquid, high-grade investment securities with terms to maturity not exceeding three years. The terms to maturity are selected based on prevailing interest rates and the expected timing of expenditures for operations and capital assets.

As at December 31, 1998, the Company's cash and short-term investments amounted to \$58.5 million. During 1998, the Company spent \$20.1 million on research and development and activities related to commercializing potential products, \$1.3 million on the purchase of capital assets, \$0.9 million on the financing of discontinued operations, and achieved a positive net change in working capital requirements of \$2.0 million. A total financing need of \$20.3 million. These expenditures were financed from cash reserves.

Based on current operating budgets, the management of Biomira believes that the capital resources of the Company are sufficient for its short-term requirements. The Company's future requirements will depend on many factors as discussed in the "Financial Outlook" section of this document.

### **Financial Outlook**

Biomira will be entering 1999 with its lead product, THERATOPE® vaccine for breast cancer, engaged in a 900 evaluable patient world-wide Phase III clinical trial. The Company expects research and development expenses to increase as a result of the clinical development and regulatory costs associated with this large scale multi-site Phase III trial.

The Company continues to maintain its strategic decision to retain sole ownership of its core technology until such time as the programs are closer to commercialization. A continued strong cash position allows the Company's products to progress as far along the value curve as possible prior to Biomira forging alliances with corporate partners. The Company is encouraged by third-party interest in its technologies, although there can be no assurance that Biomira will be successful in developing such relationships.

The Company believes that its cash and marketable securities, together with expected revenues from royalties, collaborative partners, and interest income, will be sufficient to meet the Company's operating and capital requirements into the first quarter of 2001. The sufficiency of cash on hand for continued operations past 2001 will depend on several factors, including the Company's success in the commercial launch of its products, the nature and speed of scientific progress, the advancement of clinical studies, the costs in obtaining regulatory approvals for its products, and the ability to raise additional cash through private and/or public offerings of its securities. In addition, changes in existing collaborative relationships as well as the establishment of new ones, product licensing efforts, joint ventures and other financing relationships could materially impact on the Company's financial position.

## Risk And Uncertainties

The future performance of Biomira is dependent on a number of factors, including the Company's success in bringing new products to the marketplace, the Company's ability to generate royalty revenues from licensed technology, and the status of collaborative agreements with corporate partners. In addition, this success is dependent on the effectiveness and safety of the Company's products, timely regulatory approval for new products and new indications, and the degree of patent protection afforded to particular products.

There can be no assurances that new products being developed by Biomira's competitors will not be more effective and/or more effectively marketed and sold than any that may be developed by the Company. Biomira believes that it has strong proprietary and/or patent protection or the potential for strong patent protection for a number of its products currently under development; however, the ultimate strength of patent protection may be determined by the courts and/or changes in patent legislation in various countries.

The Company has obtained \$20 million of clinical trial liability insurance for its product candidates engaged in Phase III clinical trials. It is not possible at this time to determine the adequacy of such coverage. The Company self-insures its product candidates during Phase I and Phase II clinical trials.

Due to the nature of the Company's business, the market price of the Company's shares have been subject to significant speculation and volatility. The expectations of securities analysts about the Company's financial or scientific results could have a significant effect on the trading price of the Company's shares.

### *Year 2000*

Biomira has established a detailed plan whereby the Company has reviewed the issues associated with Year 2000 compliance of its computer systems. During the past two years the Company has upgraded its core internal technology applications, and is of the opinion that it is not vulnerable to any significant issues associated with Year 2000 compliance and that no material risks and uncertainties exist as a result of its current operating systems. The Company's internal information technology consists primarily of commercial software solutions and administrative applications. All software productivity tools, e-mail, and applications have been upgraded to Year 2000 compliant versions. The Company does not interact significantly with any third parties concerning information technology issues. With redundancies having been built into our critical technological systems, failure on the part of any third parties due to Year 2000 problems would not cause any insurmountable hardships to the Company.

Biomira has established a Year 2000 Compliance Committee under the direction of the Company's Executive Committee. Through efforts conducted by this committee an inventory of all critical systems, equipment, contractors, and suppliers has been developed and prioritized. For the relatively few issues that have proven to be non-compliant with the Year 2000 problem, upgrades for hardware and software have been installed and are undergoing rigorous testing. All testing is scheduled for completion by April 1999. All critical suppliers have been contacted and contingency plans put in place, regardless of their response. These contingencies include establishment of alternate suppliers and contractors, and acquisition of surplus materials. Sufficient product for THERATOPE® vaccine to satisfy requirements for the entire Phase III trial has been manufactured. Consequently, the Year 2000 issue will not have any impact on the availability of this product for the Company's current clinical trial.

Biomira does not believe that the cost of addressing the Year 2000 issue will materially affect the results of operations or financial condition of the Company. Costs related to current and future Year 2000 initiatives are estimated at approximately \$200,000 and are expensed as incurred.

Except for historical information, the matters discussed in this report are by their nature forward-looking. For the reasons stated in this annual report or in the Company's regulatory filings, or for various unanticipated reasons, actual results may differ materially.



## Management's Responsibility For Financial Statements

The accompanying consolidated financial statements of Biomira Inc. and all information in this annual report, are the responsibility of management and have been approved by the Board of Directors.

The financial statements have been prepared by management in conformity with Canadian generally accepted accounting principles which differ in some respects from those used in the United States. The significant differences in accounting principles, as they pertain to the financial statements, are identified in the related notes. The financial statements include some amounts that are based on best estimates and judgments of management. Financial information used elsewhere in this annual report is consistent with that in the financial statements.

The management of the Company, in furtherance of the integrity and objectivity of data in the financial statements, has developed and maintains a system of internal accounting controls which management believes provides reasonable assurance that financial records are reliable and form a proper basis for preparation of financial statements and that assets are properly accounted for and safeguarded.

The Board of Directors carries out its responsibility for the financial statements in this annual report principally through its Audit Committee. The Audit Committee meets quarterly with management and the external auditors to discuss the results of the audit examinations with respect to the adequacy of the internal accounting controls and to review and discuss the financial statements and financial reporting matters. The shareholders' auditors have full access to the Audit Committee, with and without management being present.

These financial statements have been audited by the shareholders' auditors, Deloitte & Touche LLP.



Alex McPherson, MD, PhD  
President and Chief Executive Officer



Edward A. Taylor, CGA  
Vice President, Finance & Administration,  
and Chief Financial Officer

## Auditor's Report

*To the Shareholders of Biomira Inc.*

We have audited the consolidated balance sheets of Biomira Inc. as at December 31, 1998 and 1997 and the consolidated statements of operations and deficit and of changes in financial position for each of the years in the three-year period ended December 31, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 1998 and 1997 and the results of its operations and the changes in its financial position for each of the years in the three-year period ended December 31, 1998 in accordance with generally accepted accounting principles.



Edmonton, Canada  
February 15, 1999

# Consolidated Balance Sheets . As at December 31

(expressed in thousands of Canadian dollars, except per share amounts)

	1998	1997
<b>Assets</b>		
<i>Current</i>		
Cash and short-term investments	\$58,520	\$78,792
Accounts receivable	1,391	2,391
Inventories (Note 3)	-	1,133
Prepaid expenses	921	545
	60,832	82,861
<i>Capital Assets (Note 4)</i>	2,654	2,438
<i>Research And Development Acquired</i>	-	1,273
(net of accumulated amortization of \$5,520; 1997 - \$4,247)		
	\$63,486	\$86,572
<b>Liabilities</b>		
<i>Current</i>		
Accounts payable and accrued liabilities	\$3,709	\$2,986
Current portion of capital lease obligation (Note 6)	210	170
	3,919	3,156
<i>Long-Term Debt (Note 5)</i>	570	518
<i>Capital Lease Obligation (Note 6)</i>	225	333
<i>Redeemable Preference Shares (Note 7)</i>	30	30
	4,744	4,037
Contingencies And Commitments (Notes 6(b) and 9)		
<b>Shareholders' Equity</b>		
Capital stock (Note 7)	224,682	224,595
Contributed surplus	8,901	8,901
Deficit	(174,841)	(150,961)
	58,742	82,535
	\$63,486	\$86,572

(See accompanying Notes to Consolidated Financial Statements)

Approved By The Board



Director



Director



# Consolidated Statements of Operations and Deficit Years ended December 31

(expressed in thousands of Canadian dollars, except per share amounts)

	1998	1997	1996
<b>Revenue</b>			
Licensing, royalties and other	\$ 2,042	\$ 3,142	\$ 1,198
Research contracts	-	-	374
Interest	3,923	3,868	2,741
	5,965	7,010	4,313
<b>Expenses</b>			
Research and development (Note 10)	20,223	16,686	15,212
General and administrative	5,684	5,378	4,789
Depreciation and amortization (Note 4)	2,368	2,739	3,770
Interest on long-term debt	52	47	43
	28,327	24,850	23,814
<b>Loss Before Large Corporation Tax</b>	22,362	17,840	19,501
<b>Large Corporation Tax</b>	120	305	47
<b>Loss From Continuing Operations</b>	22,482	18,145	19,548
<b>Discontinued Operations</b> (Note 15)	86 1,398	2,007	2,274
<b>Net Loss</b>	23,880	20,152	21,822
<b>Deficit, Beginning Of Year</b>	150,961	130,809	108,987
<b>Deficit, End Of Year</b>	\$174,841	\$150,961	\$130,809
<b>Loss Per Common Share From Continuing Operations</b>	\$0.51	\$0.41	\$0.51
<b>Loss Per Common Share From Discontinued Operations</b>	\$ 0.03	\$0.04	\$0.06
<b>Weighted Average Number Of Common Shares Outstanding</b>	44,339,534	44,335,802	37,954,978

# Consolidated Statements of Changes in Financial Position Years ended December 31

(expressed in thousands of Canadian dollars, except per share amounts)

	1998	1997	1996
<b>Net Inflow (Outflow) of Cash Related To The Following Activities</b>			
<i>Operating</i>			
Net loss from continuing operations	\$(22,482)	\$(18,145)	\$(19,548)
Add items not affecting cash			
Amortization of interest	52	47	43
Depreciation and amortization (Note 4)	2,368	2,739	3,770
	(20,062)	(15,359)	(15,735)
Net change in non-cash balances from continuing operations (Note 11)	1,984	(805)	(155)
Cash (used in) provided by discontinued operations	(900)	1,320	(2,130)
Cash used in operations	(18,978)	(14,844)	(18,020)
<i>Investing</i>			
Purchase of capital assets	(1,311)	(1,309)	(372)
Discontinued operations	(3)	(120)	(201)
	(1,314)	(1,429)	(573)
<i>Financing</i>			
Proceeds on issue of common shares, net of issue costs	87	160	76,204
(Decrease) increase in capital lease obligation	(67)	503	-
	20	663	76,204
<b>(Decrease) Increase In Cash And Short-Term Investments</b>	(20,272)	(15,610)	57,611
<b>Cash And Short-Term Investments, Beginning Of Year</b>	78,792	94,402	36,791
<b>Cash And Short-Term Investments, End Of Year</b>	\$58,520	\$78,792	\$94,402



**1. Description Of Business**

The Company, incorporated under the Canada Business Corporations Act, is a biotechnology, health care company utilizing proprietary and patentable methods in the development, manufacture and sale of therapeutic products for the treatment of cancer.

**2. Accounting Policies**

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Canada which do not differ materially from those established in the United States, except as disclosed in Note 13, and include the following significant accounting policies:

*Basix of consolidation*

The Company's wholly-owned subsidiaries, Biomira USA Inc. (BioUSA), Biomira (Barbados) Inc. (BBI) and Biomira Diagnostics Inc. (BDI), are consolidated.

The operations of BDI were discontinued in 1998 (Note 15).

*Use of estimates*

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

*Cash and short-term investments*

The Company invests its surplus cash in treasury bills and other short-term investments. Short-term investments are valued at the lower of cost and market value.

*Inventories*

Inventories are valued at the lower of cost (first-in, first-out basis) and net realizable value.

*Depreciation and amortization*

Depreciation and amortization of capital assets, which are stated at cost, are provided at rates which are designed to amortize the cost of capital assets over their estimated useful lives on a straight-line basis as follows:

Scientific equipment	20%
Computer software and equipment	33-1/3%
Office equipment	20%
Leasehold improvements	Term of the lease plus one renewal
Manufacturing equipment	25%

Management periodically reviews the carrying value of capital assets through an assessment of estimated undiscounted future cash flows from the assets. In the year that an impairment in value occurs, the capital assets are written down to their net recoverable amounts.

*Research and development costs*

The Company expenses research costs as incurred. Certain product development costs are capitalized once market and technical feasibility have been established.

Research and development costs capitalized are amortized on a straight-line basis over the lesser of the expected life of the related product or three years. Annually, the Company reviews the recoverability of capitalized research and development costs through an evaluation of the expected future discounted cash flows from commercialization of the associated products and consideration of current and future regulatory trends to determine if there has been a permanent impairment.

*Revenue recognition*

Licensing revenue is recognized at the date the license is granted unless there are specific events which must be completed under the terms of the licensing agreement in which case a portion of the revenue is recognized upon the completion of each specific event.

Royalty revenue is recognized on an accrual basis in accordance with the contractual agreements with third parties.

Revenue from research contracts, which include government funding of joint research projects, is matched with the related costs and recognized as income as the costs are incurred.

Other revenue consists of product sales which is recognized as the product is delivered.

*Translation of foreign currencies*

Transactions in foreign currencies are translated into Canadian dollars at rates of exchange at the time of such transactions. Monetary assets and liabilities are translated at current rates of exchange. Gains or losses resulting from these translation adjustments are included in income.

*Loss per common share*

Loss per common share is calculated using the weighted average number of common shares outstanding during the year.

(all dollar amounts expressed in thousands of Canadian dollars, except per share amounts)

**3. Inventories**

	1998	1997
Raw materials	\$ -	\$ 806
Work in progress	-	282
Finished goods	-	45
	\$ -	\$1,133

**4. Capital Assets**

	1998		1997
	Cost	Accumulated Depreciation & Amortization	Net Book Value
Scientific equipment	\$8,667	\$7,272	\$1,395
Computer software and equipment	2,560	2,071	489
Office equipment	780	724	56
Leasehold improvements	2,503	1,809	694
Manufacturing equipment	599	579	20
	\$15,109	\$12,455	\$2,654
			\$2,438

Included in depreciation and amortization expense of \$2,368 (1997 - \$2,739; 1996 - \$3,770) is the amount of \$1,273 (1997 - \$1,530; 1996 - \$2,329) representing the amortization of research and development acquired.

**5. Long-term Debt**

	1998	1997
Government of Canada, Department of Western Economic Diversification, non-interest bearing loan repayable in quarterly instalments based on 5% of certain product sales, if any, beginning March 31, 1996 with the balance of the loan due March 31, 2000. The Company is restricted from paying dividends with certain specified exceptions, until the loan is repaid.	\$627	\$627
Less unamortized discount based on imputed interest rate of 10%	(57)	(109)
	\$570	\$518

There have not yet been any sales of these products.

**6. Lease Obligations***a) Capital leases*

The Company is committed to annual minimum payments under capital lease arrangements for computer equipment as follows:

1999	244
2000	162
2001	84
	\$490
Less amounts representing interest at rates ranging from 9.38% to 11.31%	55
	435
Less current portion	210
	\$225

*b) Operating leases*

The Company is committed to annual minimum payments under operating lease agreements for premises and equipment over the next five years as follows:

1999	\$ 876
2000	868
2001	866
2002	590
2003	328
	\$ 3,528

**7. Capital Stock***Authorized*

12,500 non-cumulative, non-voting Class A preference shares, redeemable at \$100 per share on an annual basis, to the extent possible, out of 20% of the net profits of the Company for each year.

Unlimited number of Class B preference shares issuable in series

Unlimited number of common voting shares



(all dollar amounts expressed in thousands of Canadian dollars, except per share amounts)

**7. Capital Stock (continued)**

The difference between the redemption value and the book value of the Class A preference shares will be expensed at the time the shares are redeemed.

The Class B preference shares may be issued solely by resolution of the Board of Directors. The Board of Directors has the authority, subject to limitations set out in the Canada Business Corporations Act, to fix the number of shares in each series and to determine the designation of rights, privileges, restrictions and conditions to be attached to each such series.

Issued	1998		1997		1996	
	Shares	Amount	Shares	Amount	Shares	Amount
Class A preference shares Issued and outstanding, beginning and end of year	12,500	\$30	12,500	\$30	12,500	\$30
Common voting shares Issued and outstanding, beginning of year	44,337,868	\$224,595	44,316,412	\$224,461	33,365,061	\$149,697
Public issue (a)	-	-	-	-	4,000,000	33,680
Exercise of warrants (b)	-	-	-	-	7,382,351	42,448
Shares cancelled (c)	-	-	(8,144)	(26)	(450,000)	(1,440)
Exercise of options (d)	26,750	87	29,600	160	19,000	76
Issued and outstanding, end of year	44,364,618	\$224,682	44,337,868	\$224,595	44,316,412	\$224,461

- a) In October, 1996, the Company completed a share offering resulting in the issuance of 4,000,000 common shares for gross proceeds of \$36,000. Total costs of the offering amounted to \$2,320.
- b) During 1996, the Company issued 7,382,351 common shares at \$5.75 per share, for cash consideration of \$42,448 as a result of the exercise of warrants. From the total common shares issued, 5,000,000 common shares were issued to Almiria and were subsequently distributed by Almiria to its shareholders on April 25, 1996. On December 5, 1996, the expiry date of the warrants, the remaining 10,153 warrants not exercised were cancelled by the Company.
- c) On December 30, 1996, the Company cancelled 450,000 common shares held in escrow at \$3.20 per share for an aggregate value of \$1,440. In October 1997, the Company cancelled 8,144 common shares held in escrow at \$3.20 per share for an aggregate value of \$26.
- d) During 1998, options on 26,750 (1997 - 29,600; 1996 - 19,000) common shares were exercised, pursuant to the Share Option Plan, at an average price of \$3.24 (1997 - \$5.38; 1996 - \$4.02) per share.

**Director and employee share options**

Details of director and employee share options are as follows:

	Number of Options	Option Price Range Per Share		
Outstanding, December 31, 1995	1,082,500	\$ 3.85	-	\$ 15.25
Issued - Share Option Plan	1,440,000	\$ 5.00	-	\$ 10.40
Exercised	(19,000)	\$ 3.85	-	\$ 6.75
Cancelled	(128,875)	\$ 3.85	-	\$ 12.50
Outstanding, December 31, 1996	2,374,625	\$ 3.85	-	\$ 15.25
Issued - Share Option Plan	1,102,500	\$ 3.10	-	\$ 6.95
Exercised	(29,600)	\$ 3.85	-	\$ 5.50
Cancelled	(205,625)	\$ 3.85	-	\$ 12.50
Outstanding, December 31, 1997	3,241,900	\$ 3.10	-	\$ 15.25
Issued - Share Option Plan	277,575	\$ 2.30	-	\$ 4.90
Exercised	(26,750)	\$ 3.10	-	\$ 3.85
Cancelled	(203,625)	\$ 3.10	-	\$ 12.50
Outstanding, December 31, 1998	3,289,100	\$ 3.10	-	\$ 15.25

Under the Share Option Plan, options are authorized up to a maximum of 4,400,000 common shares and are granted at a minimum of the market value at the date preceding the date of the grant. Options issued under the plan are vested after one year from the date of the grant and are exercisable in equal amounts over the following four years.

At December 31, 1998, of the total options outstanding for 3,289,100 common shares, options for 1,645,650 common shares were exercisable. These options expire at various dates to 2006.

**8. Income Tax Benefits**

A reconciliation of the income and large corporation tax provision in at the Canadian statutory rate to the provision for income and large corporation tax at the effective rate is as follows:

	1998	1997	1996
Loss before large corporation tax - continuing operations	\$(22,362)	\$(17,840)	\$(19,501)
Discontinued operations	(1,398)	(2,007)	(2,274)
Net loss before large corporation tax	(23,760)	(19,847)	(21,775)
Income taxes (recoveries) at Canadian statutory rates	(10,597)	(8,852)	(9,712)
Decrease (increase) resulting from benefit of tax losses not recognized in financial statements	10,597	8,852	9,712
Large corporation tax	120	305	47
Large corporation tax	\$120	\$305	\$47

The consolidated group has accumulated non-capital losses for income tax purposes of approximately \$21,500 which can be used to offset income in future periods. These losses expire at varying times in fiscal year 2000 through 2018 if not utilized. Non-capital losses of Biomira USA included in these amounts of \$7,800 for federal purposes and \$6,700 for state purposes are restricted and may not be available entirely for use in future years pursuant to Section 382 of the Internal Revenue Code. The Company also has research and development tax credit carryforwards of approximately \$19,400 that will expire in fiscal year 1999 through 2008, if not utilized.

Scientific research and experimental development expenditures of approximately \$42,900 are available to offset income in future periods. These expenditures may be utilized in any period and may be carried forward indefinitely.

**9. Contingencies and Commitments**

- The Company is party to a jointly funded research contract with Industry, Science and Technology Canada (ISTC), with ownership of the resulting technology or products developed being retained by the Company. The ISTC funding received of \$5,518 is repayable in annual instalments based on 5% of gross sales of certain products and technology beginning December 31, 1996 until the funding received of \$5,518 is repaid.
- The Company has participated in jointly funded research contracts in previous years. The Company controls (through license or ownership) the resulting technology or products and is committed to paying royalties on the sales of certain products on commercialization of the specific technology or products.
- In connection with the issuance of the Class A preference shares (Note 7), the Company has agreed to pay a royalty in the amount of 3% of the net proceeds of sale of any products sold by the Company employing technology acquired in exchange for the shares.
- In conjunction with the sale of its investment in HealthVISION Corporation effective February 11, 1994, the Company has provided specific and general representations and warranties to the purchaser. These representations expire at various dates to 1998. On January 31, 1996, the purchaser filed a statement of claim against the Company pursuant to these representations and warranties in the net amount of \$1,447 and a claim for punitive damages in the amount of \$1,000. The Company filed a statement of defence on February 16, 1996, and discovery of the Company's former Chief Financial Officer took place on February 11, 1998. The Company is of the opinion that there will be no material liability arising from these claims. Any significant liability payable by the Company arising from these claims will be recorded in the year in which the amount of the liability is determined.
- The Company, one of its subsidiaries and others have been named as co-defendants in a legal action initiated in August, 1996. The Company has filed a statement of defence and is of the opinion that there will be no material liability arising from this legal action. Consequently, no provision for any liability in connection with this action has been made in these financial statements. To the extent that a liability does arise from this claim, it will be recorded in the year in which the amount of the liability is determined.

**10. Research and Development Expenses**

Research and development expenses are comprised of:

	1998	1997	1996
Research and development incurred:			
Research and development	\$22,285	\$17,437	\$15,212
Costs recovered under terms of a collaboration agreement	(2,062)	(751)	-
	\$20,223	\$16,686	\$15,212



**11. Net Change In Non-cash Balances  
Relating to Continuing Operations**

	1998	1997	1996
Accounts receivable	\$ 1,015	\$ (599)	\$ (456)
Inventories	228	349	(577)
Prepaid expenses	(424)	(28)	(11)
Accounts payable and accrued liabilities	1,165	(527)	889
	\$ 1,984	\$ (805)	\$ (155)

**12. Fair Value Of Financial Instruments**

Financial instruments consist of short-term investments and accounts receivable which will result in future cash receipts as well as accounts payable and accrued liabilities, capital lease obligations, long-term debt and redeemable preference shares which will result in future cash outlays.

**Risk management**

The financial risk is the risk to the Company's earnings that arises from fluctuations in interest rates and foreign exchange rates and the volatility of these rates. The Company has considered, but does not use, derivative instruments to reduce its exposure to interest and foreign currency risk.

**Credit risk**

The Company is exposed to credit risk in the event of non-performance by counterparties, but does not anticipate such non-performance. The Company monitors the credit risk and credit standing of counterparties on a regular basis. The maximum credit risk is the fair value of the financial assets. The Company manages its exposure so that there is no substantial concentration of credit risk.

**Limitations**

Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgment, and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

**Cash and short-term investments, accounts receivable, accounts payable and accrued liabilities**

The carrying amounts in the consolidated balance sheets approximate fair value because of the limited term of these instruments.

**Long-term debt, capital lease obligation, redeemable preference shares**

The fair values of these instruments are based on the amount of expected future cash flows associated with each instrument discounted using an estimate of what the Company's current borrowing rate would be.

**Fair values**

The estimated fair values of the Company's financial instruments as at December 31 are as follows:

	1998		1997	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Assets (Liabilities)				
Cash and short-term investments	\$58,520	\$58,658	\$78,792	\$78,792
Accounts receivable	1,391	1,391	2,391	2,391
Accounts payable and accrued liabilities	(3,709)	(3,709)	(2,986)	(2,986)
Long-term debt	(570)	(582)	(518)	(549)
Redeemable preference shares	(30)	(30)	(30)	(30)
Capital lease obligation	(435)	(435)	(503)	(503)

**13. Reconciliation To Accounting Principles Generally Accepted In The United States**

These financial statements have been prepared in accordance with accounting principles generally accepted in Canada (Canadian GAAP) which differ in some respects from those used in the United States (U.S. GAAP). The significant differences in accounting principles as they pertain to the accompanying financial statements are as follows:

**Business Acquisition**

Under U.S. GAAP, the acquisition of BioUSA in 1995 would be valued at the stock market price of the shares issued at the date of closing. Under Canadian GAAP, the acquisition was valued at the fair value of the net assets acquired at the time the agreement was negotiated. The effect of these differences is that under U.S. GAAP the value of the shares issued would be higher by \$3,622 increasing the research and development acquired on acquisition by an equal amount. In addition, under U.S. GAAP, the research and development acquired would be charged to expense on the date of acquisition, whereas under Canadian GAAP it must be capitalized.

As well, as a result of these differences, the cancellation of shares disclosed in Notes 7(c) would result in a further reduction in share capital of \$8 and \$472 in 1997 and 1996 respectively and a recovery of the 1995 write-down of research and development acquired of \$1,946.

**Cash and Short-term Investments**

U.S. GAAP, Statements of Financial Accounting Standards ("SFAS") No. 95 requires that short-term investments with original terms of maturities in excess of three months be excluded from cash and short-term investments. Such investments would have been reclassified to trading securities.

(all dollar amounts expressed in thousands of Canadian dollars, except per share amounts)

**13. Reconciliation To Accounting Principles Generally Accepted In The United States (continued)***Trading Securities*

U.S. GAAP, SFAS No. 115 requires trading securities that have readily determinable fair values and, while not held principally for the purposes of selling them in the near term, are available for sale, must be presented at fair value with their holding gains and losses reported in a separate component of shareholders' equity until realized.

*Stock-Based Compensation*

U.S. GAAP, SFAS No. 123 requires that stock-based compensation be accounted for based on a fair value methodology. As permitted by the statement, the Company has elected to continue measuring compensation costs using the intrinsic value based method of accounting. Under this method, compensation is the excess, if any, of the quoted market value of the stock at the date of the grant over the amount an optionee must pay to acquire the stock. As the exercise price of the options approximate market value at date of grant, no compensation expense has been recognized under the stock option plan.

Had compensation cost for the Company's stock option plan been determined based on the fair value at the grant date of the awards consistent with the methodology presented under SFAS 123, additional compensation costs of \$150 (1997 - \$1,896; 1996 - \$1,656) would have been recorded in the statement of operations and deficit. This calculation is determined using an options pricing model assuming no dividends are to be paid on common shares, a weighted average volatility factor for the Company's share price of 68.3% (1997 - 69.1%; 1996 - 70.1%) and a weighted average risk free interest rate of 5.3% (1997 - 5.9%; 1996 - 6.7%). The amounts computed according to the options pricing model may not be indicative of the actual values to be realized upon the exercise of these options by the holders.

The effect of the above differences on the Company's financial statements is set out below:

**Consolidated Balance Sheets**

	1998		1997	
	Canadian GAAP	U.S. GAAP	Canadian GAAP	U.S. GAAP
Cash and short-term investments	\$58,520	\$18,189	\$78,792	\$77,84
Trading securities (SFAS 95)	-	40,469	-	71,008
Research and development acquired	-	-	1,273	-
Capital stock	224,682	227,824	224,595	227,737
Deficit	(174,841)	(177,794)	(150,961)	(155,187)
Unrealized gain (loss) on trading securities (SFAS 115)	-	138	-	(189)
Total shareholders' equity	58,742	58,880	82,535	81,262

59069 if contr. surplus = 8901.

**Consolidated Statements of Operations**

	1998	1997	1996
Loss from continuing operations under Canadian GAAP	\$(22,482)	\$(18,145)	\$(19,548)
Amortization of research and development acquired	1,273	1,530	2,329
Recovery of 1995 write-down of research and development acquired	-	34	1,912
Unrealized loss on trading securities (SFAS 115)	-	189	-
Loss from continuing operations under U.S. GAAP	(21,209)	(16,392)	(15,307)
Loss from discontinued operations under Canadian and U.S. GAAP	(1,398)	(2,007)	(2,274)
Net loss	(22,607)	(18,399)	(17,581)

## Loss per common share

*Canadian GAAP*

continuing operations

discontinued operations

*U.S. GAAP*

continuing operations

discontinued operations

	\$0.51	\$0.41	\$0.51
	\$0.03	\$0.04	\$0.06
	\$0.48	\$0.37	\$0.40
	\$0.03	\$0.04	\$0.06

**Consolidated Statements of Changes in Financial Position**

	1998	1997	1996
Under U.S. GAAP:			
Cash (and equivalents) at beginning of year	\$7,784	\$17,211	\$15,665
Cash used in continuing operations	(18,078)	(15,941)	(13,978)
Cash (used in) provided by discontinued operations	(900)	1,320	(2,130)
Cash (used in) provided by investing activities	29,363	4,531	(58,550)
Cash provided by financing activities	20	663	76,204
Cash (and equivalents) at end of year	\$18,189	\$7,784	\$17,211



(all dollar amounts expressed in thousands of Canadian dollars, except per share amounts)

**13. Reconciliation To Accounting Principles Generally Accepted In The United States (continued)**

As well, the following additional disclosure is required under U.S. GAAP:

	1998		1997	
	Amortized Cost	Market Value	Amortized Cost	Market Value
Cash and deposits with original maturities of three months or less	\$18,189	\$18,189	\$7,784	\$7,784
Trading securities (SFAS 115)	40,469	40,469	71,008	71,008
	\$58,658	\$58,658	\$78,792	\$78,792

The unrealized loss on trading securities in 1997 of \$189 has been included in the Consolidated Statement of Operations for Canadian GAAP.

**14. Segmented Information**

The Company is primarily engaged worldwide in the biotechnology health care industry which involves the development of products for the treatment of cancer. Operations and capital assets by geographic region for the periods indicated are as follows:

Years ended December 31	1998	1997	1996
Net licensing, royalties and other revenue			
<i>Canada</i>			
Continuing	\$1,300	\$3,004	\$1,546
Discontinued	2,786	6,234	5,090
<i>United States</i>	742	138	26
	4,828	9,376	6,662
Operating loss from			
<i>Canada</i>			
Continuing	8,075	12,733	14,198
Discontinued	1,398	2,007	2,274
<i>United States</i>	5,632	5,412	5,350
Other	8,775	-	-
	23,880	20,152	21,822
Capital assets and goodwill			
<i>Canada</i>			
Continuing	2,007	1,898	1,601
Discontinued	-	-	1,849
<i>United States</i>	647	540	736
	2,654	2,438	4,186
Net licensing, royalty and other revenue from Canadian operations by market destination			
<i>United States</i>	1,201	2,043	405
Other	96	906	704
Total export sales	1,297	2,949	1,109
<i>Canada</i>	3	55	437
Total Canadian - Continuing operations	1,300	3,004	1,546
Discontinued operations	2,786	6,234	5,090
Total Canadian operations	\$4,086	\$9,238	\$6,636

**15. Discontinued Operations**

On August 31, 1998, the Company discontinued the operations of its subsidiary BDI. For the years presented, the loss from discontinued operations has been reported separately in these financial statements.

BDI's revenue of \$2,786 for 1998 (1997 - \$6,234; 1996 - \$5,090) has been excluded from consolidated revenue. The remaining net assets of BDI which are included on the consolidated balance sheet in the amount of \$368 consist of cash and accounts receivable.

**16. Uncertainty Due To The Year 2000 Issue**

The Year 2000 Issue arises because many computerized systems use two digits rather than four to identify a year. Date-sensitive systems may recognize the year 2000 as 1900 or some other date, resulting in errors when information using year 2000 dates is processed. In addition, similar problems may arise in some systems which use certain dates in 1999 to represent something other than a date. The effects of the Year 2000 Issue may be experienced before, on, or after January 1, 2000, and, if not addressed, the impact on operations and financial reporting may range from minor errors to significant systems failure which could affect an entity's ability to conduct normal business operations. It is not possible to be certain that all aspects of the Year 2000 Issue affecting the entity, including those related to the efforts of customers, suppliers, or other third parties, will be fully resolved.

**17. Comparative Figures**

Certain of the comparative figures have been reclassified to conform with the current year's presentation.





Alex McPherson, M.D., Ph.D.  
President & Chief Executive Officer

## Biomira Corporate Information

### Board of Directors

**Eric E. Baker (1)**

President, Miralta Capital II Inc.  
Chairman of the Board, Biomira Inc.

**S. Robert Blair, CC (1)**

Commissioner General  
Canada at Expo 2000, Hannover

**Sheila Moriber Katz, M.D., MBA (2) (3)**

Professor of Pathology and Laboratory Medicine

**B. Michael Longenecker, Ph.D.**

Professor Emeritus, Immunology,  
University of Alberta  
Senior Vice President, Research & Development,  
Biomira Inc.

**Alex McPherson, M.D., Ph.D. (1)**

Professor Emeritus, Faculty of Medicine,  
University of Alberta  
President & Chief Executive Officer  
Biomira Inc.

**W. Vickery Stoughton (2)**

Chairman and CEO  
Exigent Diagnostics Inc.

**Michael C. Welsh, QC (2) (3)**

President,  
Almasa Capital, Inc.

**John L. Zabriskie, Ph.D.**

Chairman, President & Chief Executive Officer  
NEN Life Science Products, Inc.

(1) Member of Executive Compensation Committee

(2) Member of Audit Committee

(3) Member of Corporate Governance Committee

### Corporate Officers

**Alex McPherson, M.D., Ph.D.**

President & Chief Executive Officer

**B. Michael Longenecker, Ph.D.**

Senior Vice President,  
Research and Development

**Robert D. Aubrey**

Vice President, Marketing & Sales

**Grant D. MacLean, MB, ChB, FRACP**

Vice President, Clinical & Regulatory Affairs

**Edward A. Taylor, CGA**

Vice President, Finance & Administration,  
C.F.O. & Corporate Secretary

**Mark D. Young, Ph.D.**

Chief Operating Officer

### Auditors

**Deloitte & Touche**

2000 Manulife Place  
10180-101 Street  
Edmonton, Alberta  
T5J 4E4

### Share Registrar and Transfer Agents

**Montreal Trust**

**Company of Canada**

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530 - 8th Ave. S.W.  
Calgary, Alberta  
T2P 3S8

**United Missouri Trust Company**

1 Battery Park Plaza  
8th Floor  
New York, NY 10004

**Jane Tulloch**

Manager, Investor Relations  
Tel 780.490.2812

### Public Relations

**BMC Communications Group**

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### Investor Relations

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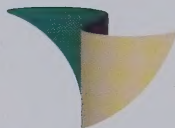
[www.biomira.com](http://www.biomira.com)

### Stock Listing

The Company's common shares are traded in Canada on The Toronto Stock Exchange and The Montreal Stock Exchange under the trading symbol **BRA** and in the United States on **NASDAQ** under the trading symbol **BIOM**.

### The Annual General Meeting

of shareholders of Biomira will be held at the Marriott Hotel Eaton Centre, 525 Bay Street, Toronto, Ontario on Wednesday, the 26th day of May, 1999 at 4:00 p.m.



**B I O M I R A**  
The Cancer Vaccine People™